



## REPLACEMENT SPECIFICATION

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On page 1 after the title, please insert the following paragraphs:

CH This application claims benefit under 35 U.S.C. § 120 as a continuation-in-part of U.S. Patent Application Serial No. 08/957,047 filed October 24, 1997 and which issued as U.S. Patent No. 6,209,400 on April 3, 2001.



## MARKED-UP SPECIFICATION

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### CONSOLE MOUNTED VIBRATION SEVERITY MONITOR

This application claims benefit under 35 U.S.C. § 119(e) as a  
continuation-in-part of U.S. Patent Application Serial No.  
08/957,047 filed October 24, 1997 and which issued as U.S. Patent  
No. 6,209,400 on April 3, 2001.

### BACKGROUND OF THE INVENTION

#### 1. Field of the invention.

The present invention relates generally to press vibration monitoring and more particularly, to a method of generating a press load/speed vibration severity condition indicator for the determination of press/die long-term operating reliability during production operation and to an apparatus utilizing the information generated by the above method in monitoring press vibration severity.

#### 2. Description of the related art.

The traditional method for calculating the tonnage of a press die is mainly by a means of static load calculation. A given die has a certain material shear length and a stock material with a certain thickness. From this, the tonnage of the die or the force necessary to shear or form the part may be calculated. Traditional press sizing has been based on "static" die shear loading as calculated using the equation; [Shear Length (in.)] [Thickness (in.)] [S. (lb/in<sup>2</sup>)] = Shear Load (lb).

This load (plus forming and blanking static loads) has traditionally been considered the only significant load and thus